

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Canceled)
2. (Currently Amended) The composite paperboard structure of claim ~~13~~, wherein said polymer film layer, said bonding polymer layer and said reinforcing scrim all have a chemical composition that permits recycling said backing structure without separating the layers thereof.
3. (Currently Amended) A composite paperboard structure comprising a backing structure adhered to a paperboard layer, said backing structure consisting of:
 - a) an oriented polymer film layer;
 - b) a thermal bonding polymer layer adjacent and substantially coextensive thereto, said thermal bonding polymer layer having a thickness between 10% and 40% of a combined thickness of the oriented polymer film layer and the thermal bonding polymer layer; and
 - c) a reinforcing scrim polymer layer adjacent and substantially coextensive with the thermal bonding polymer layer;

~~The composite paperboard structure of claim 1,~~ wherein the oriented polymer film layer, the thermal bonding polymer layer, and the reinforcing scrim polymer layer each individually comprise a synthetic condensation polymer,

the synthetic condensation polymers each comprising, in polymerized form:

- 1) a) a carboxylic acid or a mixture of carboxylic acids, and b) either i) a diamine or a mixture of diamines, or ii) a diol or a mixture of diols, or
- 2) an ω -amino acid having more than 2 carbon atoms, or a mixture of such amino acids,

wherein, for the backing structure taken as a whole,

at least 90 mol% of a combined total amount of the carboxylic acid or the mixture of carboxylic acids in the synthetic condensation polymers is the same carboxylic acid,

at least 90 mol% of a combined total amount of the diamine or the mixture of diamines in the synthetic condensation polymers is the same diamine,

at least 90 mol% of a combined total amount of the diols or the mixture of diols in the synthetic condensation polymers is the same diol, and

at least 90 mol% of a combined total amount of the amino acid or the mixture of amino acids in the synthetic condensation polymers is the same amino acid.

4. (Original) The composite paperboard structure of claim 3, wherein the oriented polymer film layer comprises biaxially oriented polyethylene terephthalate.

5. (Original) The composite paperboard structure of claim 4, further comprising a second backing structure as defined in claim 1 adhered to the paperboard layer.

6. (Original) The composite paperboard structure of claim 4, wherein the thermal bonding polymer layer comprises an amorphous copolyester of about 60 to about 90 mol% ethylene terephthalate and correspondingly about 40 to about 10 mol% ethylene isophthalate.

7. (Original) The composite paperboard structure of claim 4, wherein the backing structure is adhered to the paperboard layer via an adhesive layer.

8. (Original) The composite paperboard structure of claim 7, wherein the adhesive layer comprises an amorphous copolyester of about 60 to about 90 mol% ethylene terephthalate and correspondingly about 40 to about 10 mol% ethylene isophthalate.

9. (Original) The composite paperboard structure of claim 4, wherein the reinforcing scrim polymer layer comprises a woven or nonwoven material comprising polyester fibers.

10. (Original) The composite paperboard structure of claim 4, wherein the paperboard layer is adhered to the reinforcing scrim polymer layer.

11. (Original) The composite paperboard structure of claim 10, further comprising a metal layer adjacent and substantially coextensive with the oriented polymer film layer.

12. (Original) The composite paperboard structure of claim 4, wherein the paperboard layer is adhered to the oriented polymer film layer.

13. (Original) The composite paperboard structure of claim 12, further comprising a metal layer adjacent and substantially coextensive with the reinforcing scrim polymer layer.

14. (Original) The composite paperboard structure of claim 8, wherein the thermal bonding polymer layer comprises an amorphous copolyester of about 60 to about 90 mol% ethylene terephthalate and correspondingly about 40 to about 10 mol% ethylene isophthalate.

15. (Original) The composite paperboard structure of claim 4, wherein paperboard layer is a corrugated paperboard layer.

16. (Original) The composite paperboard structure of claim 15, wherein the paperboard layer is adhered to the reinforcing scrim polymer layer.

17. (Original) A container comprising a plurality of walls defining a cavity for containing an article, wherein at least one of said plurality of walls comprises a composite paperboard structure comprising a backing structure adhered to a paperboard layer, said backing structure consisting of:

a) an oriented polymer film layer;

b) a thermal bonding polymer layer adjacent and substantially coextensive thereto, said thermal bonding polymer layer having a thickness between 10% and 40% of a combined thickness of the oriented polymer film layer and the thermal bonding polymer layer; and

c) a reinforcing scrim polymer layer adjacent and substantially coextensive with the thermal bonding polymer layer;

wherein the oriented polymer film layer, the thermal bonding polymer layer, and the reinforcing scrim polymer layer each individually comprise a synthetic condensation polymer,

the synthetic condensation polymers each comprising, in polymerized form:

1) a) a carboxylic acid or a mixture of carboxylic acids, and b) either i) a diamine or a mixture of diamines, or ii) a diol or a mixture of diols, or

2) an ω -amino acid having more than 2 carbon atoms, or a mixture of such amino acids,

wherein, for the backing structure taken as a whole,

at least 90 mol% of a combined total amount of the carboxylic acid or the mixture of carboxylic acids in the synthetic condensation polymers is the same carboxylic acid,

at least 90 mol% of a combined total amount of the diamine or the mixture of diamines in the synthetic condensation polymers is the same diamine,

at least 90 mol% of a combined total amount of the diols or the mixture of diols in the synthetic condensation polymers is the same diol, and

at least 90 mol% of a combined total amount of the amino acid or the mixture of amino acids in the synthetic condensation polymers is the same amino acid.

18. (Original) The container of claim 17, wherein the oriented polymer film layer comprises biaxially oriented polyethylene terephthalate.

19. (Original) The container of claim 18, wherein the paperboard layer is adhered to the reinforcing scrim polymer layer.